

LXIII.—*The Otter of Central America.*

By C. I. FORSYTH MAJOR.

DURING the preparation of a detailed paper on the skulls of the Otters, the publication of which has been accidentally delayed by my absence from Europe, the species occurring in Central America has proved to need a new name. It may be called *Lutra annectens*, sp. n.

The nearest affinities of *L. annectens*, of which I have examined two skulls from Mexico, two from Guatemala, and one from Panama, are not with *L. felina*, Mol., as supposed by Tomes, Coues, Alston, and Allen, but with the North-American *canadensis*, as von Frantzius has supposed, and the South-American middle-sized Otters, as shown by O. Thomas; these last, in my opinion, must have only one name, viz. *L. enhydris*, F. Cuv. (emend.). It must be stated at the outset that not all the characters assigned to *canadensis* as distinctive from *enhydris* are constant, and neither are those of the latter; there are specimens of *canadensis* which in the form of the skull and teeth approach *enhydris*, and *vice versâ*.

L. annectens agrees with *canadensis* (1) in having a straight inferior mandibular margin (in one skull from Alaska, however, it is curved as in South-American Otters, whilst in one from Ilheos, Brazil, it is straight, as usual in *canadensis*); (2) as in *canadensis*, the premolars in *annectens* are slenderer, less massive than in *enhydris*. But they even go beyond the northern form in this respect, as the anterior ones are so small that when the jaws are closed they do not closely interlock or touch one another, though they overlap. P. 2 inf. is smaller as compared to p. 1 than even in *canadensis*, and there is a real diastema between p. 1 and p. 2 inf.

P. 1 sup. also is less massive in *annectens* than usual in *enhydris*, and presents more the triangular form of *canadensis*; but here, again, it must be stated that in a skull (♂) from Surinam and in two (♀) from Brazil this tooth is triangular, whilst other South-American skulls from Cayenne, Desterro, Maldonado, &c. present transitions between the shape of the tooth in the first-named three and the massive almost quadrate form in one skull from British Guiana and two from Rio Grande do Sul.

In the following cranial and dental characters *annectens* shows agreement with *enhydris*:—

1. The upper contour of the skull slopes downwards anteriorly (in its facial part), whilst it is straight in *canadensis*.

2. The bullæ osseæ are, alike in *annectens* and *enhydris*, less flattened than in *canadensis*.

3. M. 1 sup. is, as in *enhydris*, more extended transversely; in *canadensis* it has a more quadrate shape, and is, besides, as a rule, distinguished from both by a nick in its posterior border.

In the relative dimensions of the skull *annectens* presents intermediate characters:—Absolute basal length: *canadensis* 95·8 (♀)—103·4 millim.; *annectens* 97·8 . 106·2; *enhydris* 93—115*.

Greatest breadth (percentage dimensions):

<i>canadensis</i>	69·1—78·1
<i>annectens</i>	75 . 75·1
<i>enhydris</i>	67·1—77

Cranial breadth, behind zygomatic arches and above meatus audit. (pc. dim.):

<i>canadensis</i>	55·3—56·1
<i>annectens</i>	58·3 . 59·8
<i>enhydris</i>	55·1—61

Breadth between upper canines (pc. dim.):

<i>canadensis</i>	24·3—27·2
<i>annectens</i>	26·1 . 28·2
<i>enhydris</i>	24·5—28

Palate length (pc. dim.):

<i>canadensis</i>	46·6—50·5
<i>annectens</i>	45·9 . 46·5
<i>enhydris</i>	42·9—54·6

In the greatest posterior breadth—as in the form and position of premolars—the Central-American Otters present features of their own, since they show the maximum of posterior breadth of all the crania under consideration:

<i>annectens</i>	72·7 . 74·5
<i>canadensis</i>	63·7—69
<i>enhydris</i>	62·5—71

The Central-American Otters, therefore, whilst sharing some characters with *canadensis*, on the whole approach more to *enhydris*. Besides, some of their characters are intermediate between the North-American and the South-American Otters; so that, even apart from their habitat, they are in more than one sense intermediate between their

* It must be confessed that my material of *canadensis* is sadly insufficient; the ten skulls of *enhydris*, of which all the measurements could be taken, give much better averages than the five of *canadensis*.

northern and southern relatives. And, lastly, they present some features of their own. As an obvious conclusion, we must expect that at some future date it will be possible to show that *canadensis*, *annectens*, and *enhydris* are but subspecies of a single species.

Measurements of the skull of the type (♂) in millimetres:—

Basal length 106·2; greatest breadth 79·8; cranial breadth 63·5; breadth between upper canines 30; interorbital breadth 26; greatest posterior breadth 77·2; palate length 48·7.

Hab. Terro Tepic, Rio de Tepic, Jalisco, Mexico. Coll. Dr. A. C. Bullen, Jan. 1891.

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LXIV.—On the Relations of *Antennophorus Uhlmanni*, Haller, to *Lasius mixtus*, Nyl. By M. CHARLES JANET*.

ANTENNOPHORUS UHLMANNI is an Acarid which was described in 1877 by Haller from specimens found in Switzerland in a nest of *Lasius niger*. Since that time this species has been found by Karpeller in Hungary in a nest of *Lasius umbratus*. These two references are the only ones with which I am acquainted. No observations have been made up to the present on the habits of this creature.

I have found it in abundance in the garden of the Villa des Roses, near Beauvais, in a splendid nest of *Lasius mixtus*, and I took advantage of the opportunity to set up a nest for observation, which has enabled me to ascertain the relations of this parasite with its host.

Antennophorus Uhlmanni lives as an epizoon upon *Lasius*. It fixes itself on the lower surface of the head or on the sides of the abdomen of its host by means of the carunculae in which its feet terminate, and which are furnished with a very adhesive sticky substance.

These parasites are blind, but the first pair of feet is transformed into long antenniform appendages provided with very sensitive olfactory organs. They do not wander about in the galleries of the nest, but walk over the bodies of the ants, passing from one to another. When an *Antennophorus*, detached from the body of an ant, lies upon the soil in one of the galleries of the nest, it raises and stretches forward its first pair of ambulatory feet, and at the same time explores the space around it with its long antenniform feet. These

* 'Comptes Rendus,' 1897, t. cxxiv. pp. 583-585.